

# Managing Inshore Impacts of Coastal Energy Production



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# North Carolina's Coastal Ecosystem

- Largest estuarine system of any single Atlantic coast state (2.3 million acres)
- Located at convergence of South Atlantic and Mid Atlantic biogeographic provinces
- Diverse coastal fish habitats
- Strong heritage of commercial and sport fishing



# Economic value of coastal resources

- Ex-vessel value commercial fishery - \$82 million
- Total Economic recreational fishery - \$2.5 billion
- Tourism associated with fishing





# NC's Management Framework

## Public Trust Doctrine

All public trust lands, waters, and living resources are held by the State in trust for the benefit of all people

Federal and state agencies are authorized through statute (GS 113-131...) to review & comment on habitat alteration permit applications- over 12 state agencies

GS 113-229(e) Applications for permits except special emergency permit applications shall be circulated by the Department among all State agencies to review



# NC's Management Framework

- Clean Water Act
- Dredge and Fill Law
- Coastal Area Management Act
- Fisheries Reform Act / Magnuson-Stevenson Act

## State Dredge and Fill Law

§ 113-229....before any excavation or filling project is begun in any estuarine waters, tidelands, marshlands, or State-owned lakes, the party or parties desiring to do such shall first obtain a permit from the Department.



# NC's Management Framework

## Coastal Area Management Act

§ 113A-102(a) The public's opportunity to enjoy the physical, aesthetic, cultural, and recreational qualities of the natural shorelines of the State shall be preserved to the greatest extent feasible;

water resources shall be managed in order to preserve and enhance water quality and to provide optimum utilization of water resources;

land resources shall be managed in order to guide growth and development and to minimize damage to the natural environment;

private property rights shall be preserved in accord with the Constitution of this State and of the United States.



# Coastal Resources

- Water Resources
- Fisheries Resources
- Wildlife Resources
- Cultural Resources
- Air Resources
- Aesthetics
- Energy Resources
- State Transportation System
- Economic Resources
- Recreational resources (beaches, fishing, parks, boating, water access, etc.)

## Areas of Environmental Concern

- Estuarine and Ocean System
- Ocean Hazard System
- Public Water Supplies
- Natural and Cultural Resource Areas



# NC's Management Framework

## Fisheries Reform Act

- DMF to develop Fishery Management Plans for important fishery species
- DENR to develop a **Coastal Habitat Protection Plan**, with the goal of:

*“...long-term enhancement of coastal fisheries associated with each habitat” (G.S. 143B-279.8)*





# NC's Management Framework

## SEPA review process required if:

- Action by a state agency (appropriating land, issuing permit) and
- potentially significant effect on natural resources and
- Expenditure of public funds or
- Private use of public land, state owned submerged land or water

## Types of documents reviewed:

EA/EIS

CAMA Major permits

CAMA Federal Consistency

DWQ NPDES permits

COE Public Notices

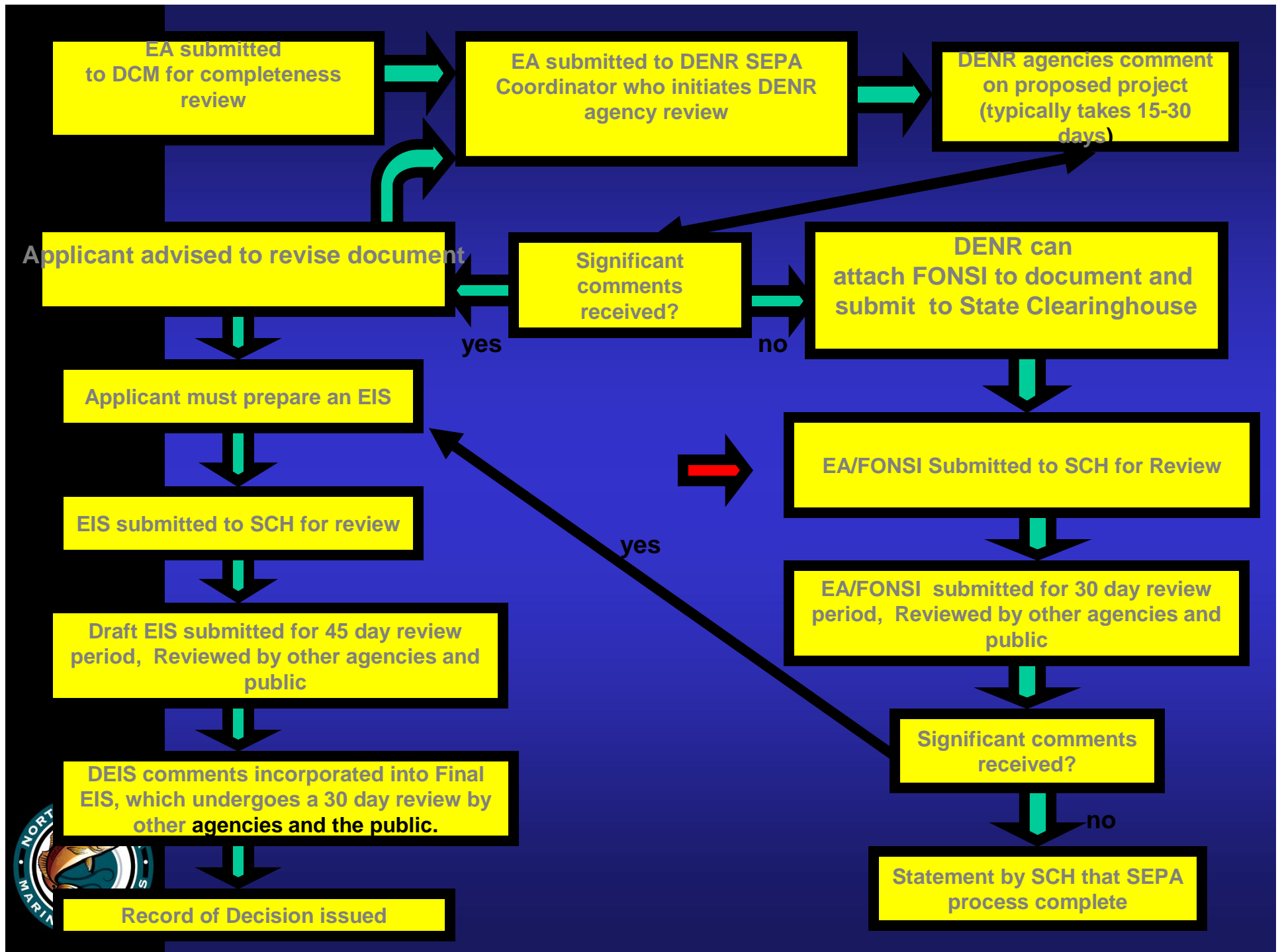
DWQ 401 Certifications

DWQ Coastal Stormwater

DLR Mining permits

Public Water Supply permits





# NC's Management Framework

## Major Permit Reviewing Agencies

- Division of Coastal Management
  - Division of Water Quality
    - Wetlands Section
    - Stormwater Section
  - Division of Marine Fisheries
  - Division of Land Resources
  - Wildlife Resources Commission
  - Division of Cultural Resources
  - Department of Transportation
  - Division of Community Assistance
  - Division of Water Resources
  - State Property Office
- U.S. Army Corps of Engineers**
- **U.S. Fish and Wildlife Service**
  - **National Marine Fisheries Service**
  - **Environmental Protection Agency**
  - **Local Government's**



# NC's Management Framework

## 15A NCAC 07H .0207(d) Use Standards

- .....In the absence of overriding public benefit, any use which jeopardizes the capability of the waters to be used by the public for navigation or other public trust rights shall not be allowed.
- Development may be acceptable within public trust areas, provided that such uses shall not be detrimental to the public trust rights and the biological and physical functions of the estuary.
- Projects which would directly or indirectly block or impair existing navigation channels, increase shoreline erosion, deposit spoils below normal high water, cause adverse water circulation patterns, violate water quality standards, or cause degradation of shellfish waters are considered incompatible with the management policies of public trust areas.....



# NC's Management Framework

- 15A NCAC 07H .0208(a)(2)

.....Before being granted a permit by the CRC, there shall be a finding that the applicant has complied with the following standards:

that no suitable alternative site outside of the AEC exists

the applicant selected a site and design that will have a minimum adverse impact upon the productivity and biologic integrity of coastal marshland, shellfish beds, beds of submerged aquatic vegetation, spawning and nursery areas, important nesting and wintering sites for waterfowl and wildlife, and important natural erosion barriers (cypress fringes, marshes, clay soils).





# NC's Management Framework

When reviewing permit applications, consider:

- Direct impacts
- Indirect impacts
- Cumulative impacts

Applicant must show ( in order):

- Avoidance
- Minimization
- Mitigation

Assess how project affects:

- Habitat impacts
- Fish impacts
- Fishing activity conflicts
- Navigation



# NC's Management Framework

Division of Marine Fisheries mission:

ensure sustainable marine and estuarine fisheries & habitat for all people

DMF particularly concerned with significant adverse impacts to:

- MFC Designated Primary Nursery Areas
- MFC Designated Anadromous Fish Spawning Areas
- Submerged Aquatic Vegetation Habitat
- Shellfish Beds
- SA Waters with Open Shellfish Harvest classification
- Protected species



# NC's Management Framework

## Federal management

### EPA Clean Water Act - Anti-degradation provisions

- must maintain existing uses within a waterbody – ie. Can't cause a shellfish closure in SA waters
- Policy of the EMC to maintain , protect, and enhance water quality through requirements of anti-degradation provisions of CWA

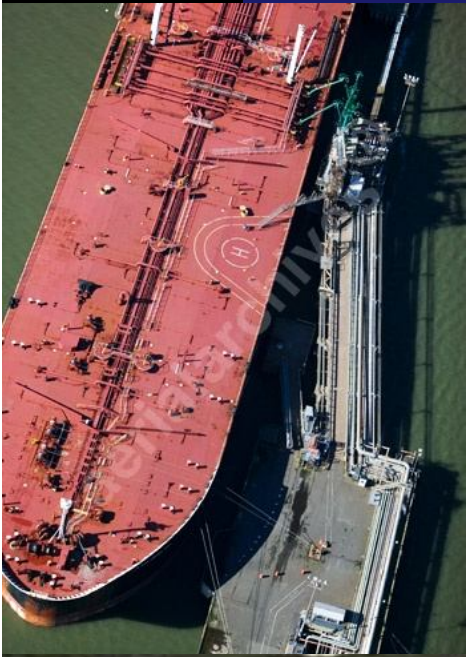
NMFS – designated Essential Fish Habitat

USFWS – designated Critical Habitat

SAFMC – policy statements on EFH, activities including oil and gas development

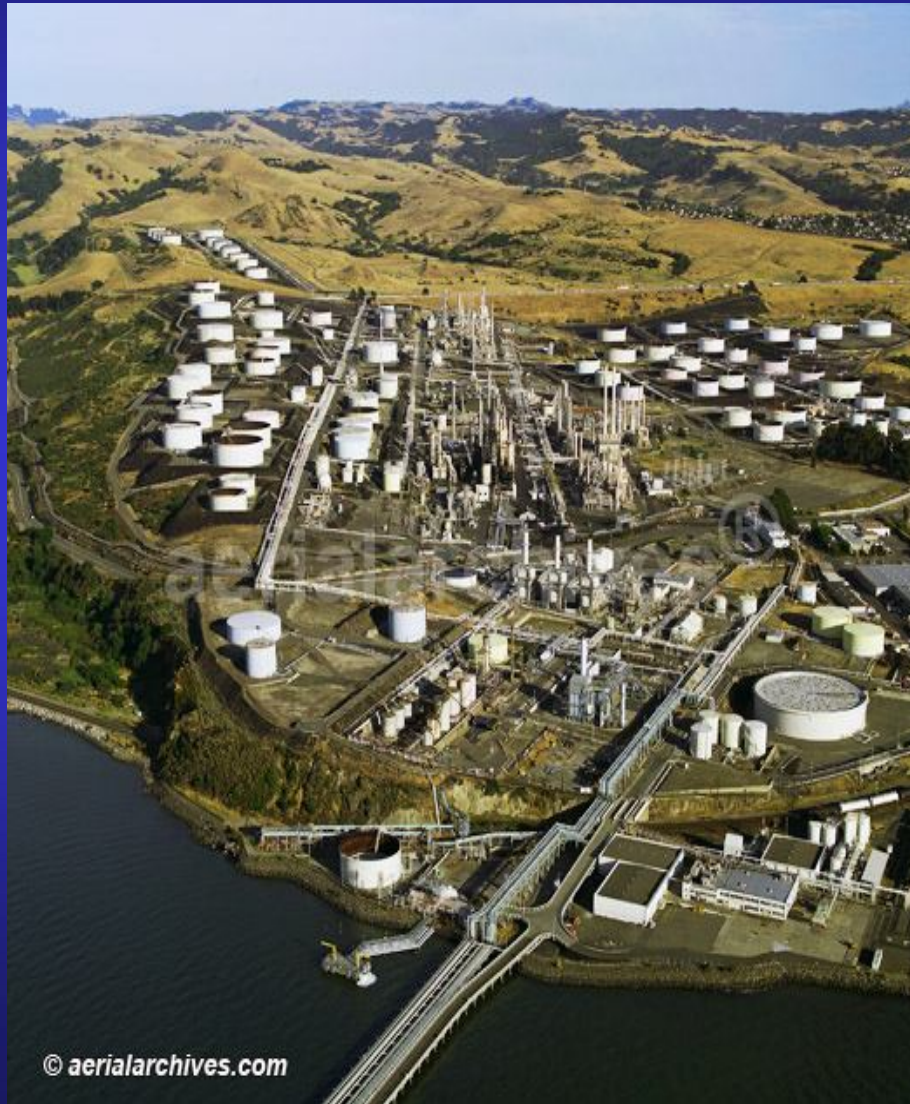


# NC's Management Framework





# NC's Management Framework



Impacts to estuarine resources from:

- dredging from incoming pipelines
- dock construction
- Wetland filling for upland infrastructure
- Stormwater runoff control
- Wastewater discharge
- New roads, rail, etc.
- Oil/gas spills carried to intertidal habitats



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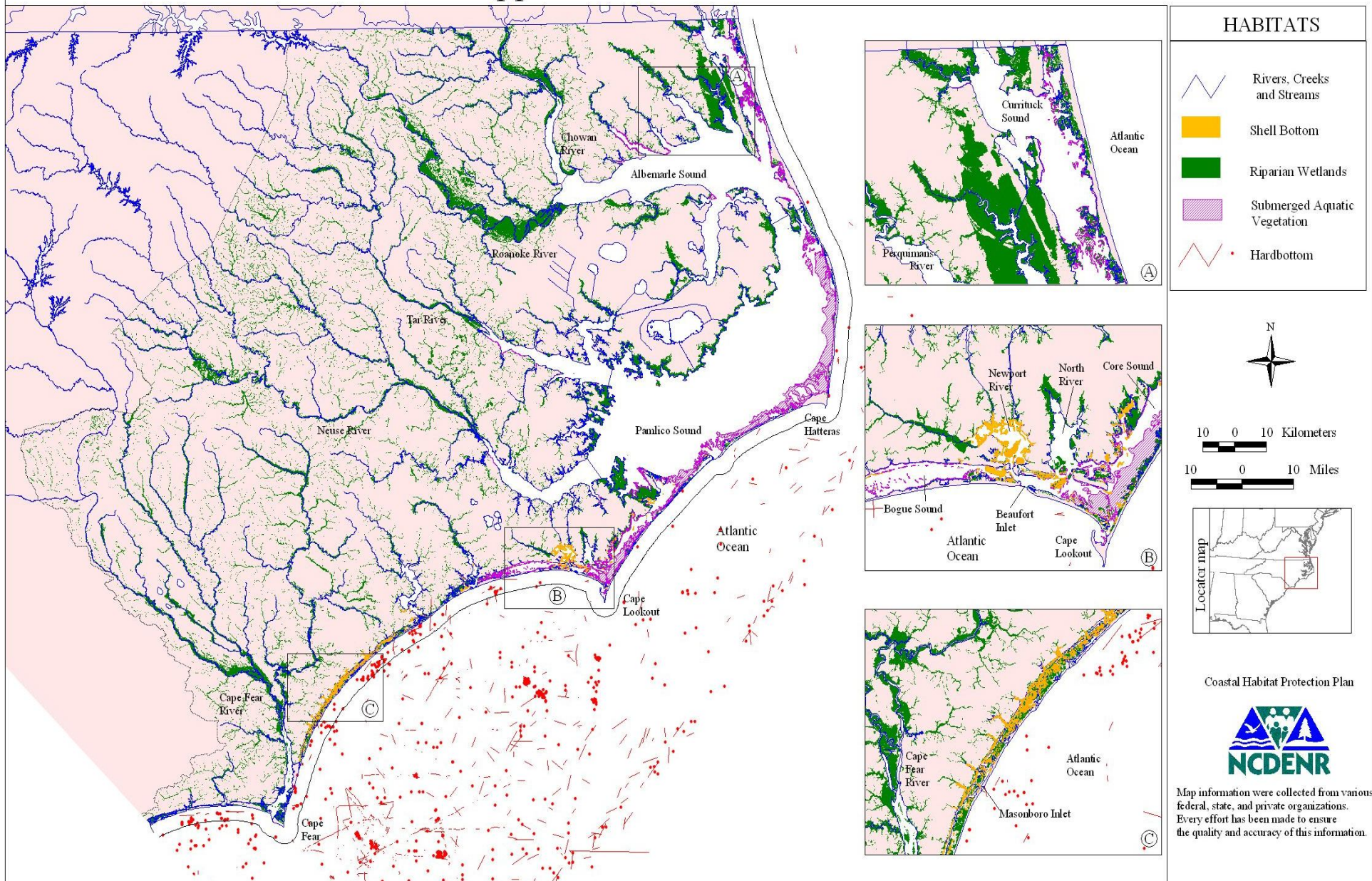








# General Location of Mapped Fish Habitats in Coastal North Carolina





# North Carolina Coastal Habitat Protection Plan

